



# ASCLS Continuing Education

## Clinical Lab Investigations: Case Studies for the Lab Professional Case set #20 – Chemistry

### Final Quiz

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Select the single best answer for each of the following multiple-choice questions and record on the answer sheet.

1. What is a common cause of rhabdomyolysis?
  - a. Crush injuries
  - b. Excess blood loss
  - c. Prolonged vomiting
  - d. Low-intensity physical exercise
  
2. What electrolyte is likely to be elevated in rhabdomyolysis?
  - a. Sodium
  - b. Chloride
  - c. Potassium
  - d. Bicarbonate
  
3. Why is rhabdomyolysis of significant concern for a patient with renal dysfunction?
  - a. It can lead to infections
  - b. It lowers the blood pressure
  - c. Free myoglobin can damage the renal tubules
  - d. Creatine kinase (CK) is a powerful renal toxin
  
4. What level of creatine kinase (CK) is generally considered diagnostic for rhabdomyolysis?
  - a. 2x normal
  - b. 5x normal
  - c. 10x normal
  - d. 0.5x normal
  
5. What is an acute danger of rhabdomyolysis?
  - a. Dehydration
  - b. bilirubinemia
  - c. Hyperkalemia due to myocytic damage
  - d. High CK levels crossing the blood-brain barrier

6. In rhabdomyolysis, damage to what type of cell causes the release of cellular contents in the blood?
  - a. Myocyte
  - b. Neutrophil
  - c. Osteoblast
  - d. Macrophage
  
7. What compound may be found in the urine of a patient with acute rhabdomyolysis and may cause false positive results for blood when performing dipstick urinalysis?
  - a. Bacteria
  - b. Myoglobin
  - c. Ketone bodies
  - d. Renal epithelial cells
  
8. Which of the following laboratory results is NOT characteristic of rhabdomyolysis?
  - a. Normal troponin I level
  - b. Elevated creatine kinase
  - c. Elevated parathyroid hormone
  - d. Elevated serum potassium level
  
9. What test can be used to rule out acute myocardial infarction (AMI) in a patient with a high creatine kinase (CK) level?
  - a. Troponin I
  - b. Alanine aminotransferase (ALT)
  - c. Aspartate aminotransferase (AST)
  - d. Gamma-glutamyl transferase (GGT)
  
10. Why would administration of bicarbonate be necessary in acute cases of rhabdomyolysis?
  - a. To counteract acidosis
  - b. To prevent phosphate overload
  - c. To catalyze a chloride shift into the cells
  - d. Bicarbonate should never be used in the treatment of rhabdomyolysis

Record all answers on the answer sheet. (1) Complete the form below. (2) record your answers. (3) Detach and **mail** your answer sheet check or money order (**\$15 for ASCLS members, \$25 for non-members**) to:

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**ASCLS Continuing Education Answer Sheet**  
**Clinical Lab Investigations: Case set #20 – Chemistry**  
carries **1.0 hours** of continuing education. This form must be received by  
**December 31, 2017** to receive credit



Multiple Choice Questions

Circle the single best answer for each question

1.    A    B    C    D
2.    A    B    C    D
3.    A    B    C    D
4.    A    B    C    D
5.    A    B    C    D
6.    A    B    C    D
7.    A    B    C    D
8.    A    B    C    D
9.    A    B    C    D
10.  A    B    C    D

Use this section to evaluate the above titled session. Circle the number (**1-low, 5-high**) to indicate your ratings of this program, objectives, and speaker; use one response per line. Please complete this form to fulfill the session requirements.

To what extent:

**Did the author(s) present a knowledgeable, organized, and concise case study?**

1       2       3       4       5

**Did the case studies achieve their printed objectives?**

1       2       3       4       5

**Rate your overall satisfaction with the content of this case study.**

1       2       3       4       5

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